

**ABSTRACT**

Apparatus and methods that use the acoustic characteristics of vascular blood flow to assess vascular conditions are disclosed. An example method for detecting a change in a vascular condition receives sound information associated with blood flowing through a vascular structure and converts the sound information into data associated with a plurality of cardiac cycles. The example method processes the data associated with the plurality of cardiac cycles to determine an acoustic characteristic associated with a current state of the vascular condition and detects the change in the vascular condition based on a difference between the acoustic characteristic associated with the current state of the vascular condition and a baseline acoustic characteristic associated with an earlier state of the vascular condition.